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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/548,313	04/12/2000	Hidehiko Kira	000452	6169

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[REDACTED] EXAMINER

RENNER, CRAIG A

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

2652

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/548,313	Kira et al.
Examiner	Art Unit
Craig A. Renner	2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 7 Nov 2002

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-6 and 8-33 is/are pending in the application.

4a) Of the above, claim(s) 4, 6, 9-29, and 31-33 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3, 5, 8, and 30 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

4) Interview Summary (PTO-413) Paper No(s). _____

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

6) Other: _____

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Election/Restriction

1. Claims 14-29 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 7, filed 4 February 2002.
2. Claims 10-13 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 9, filed 14 March 2002.
3. Applicant's election without traverse of "Species II" upon which "Claims 1-3, 5, 8, 10 and 30" are said to "read" in Paper No. 14, filed 7 November 2002, is acknowledged. Note, however, that claim 10 had already been withdrawn in paragraph 2, supra. Accordingly, claims 4, 6, 9, and 31-33 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by

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another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. § 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. § 122(b). Therefore, this application is examined under 35 U.S.C. § 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

5. Claims 1 and 30 are rejected under 35 U.S.C. § 102(e) as being anticipated by Ohwe et al. (US 6,437,944).

Ohwe teaches a head assembly (20) comprising a mounting surface (30Ea); an integrated circuit chip (100E) which is mounted on the mounting surface and processes signals, and a head slider (90) provided with a head (92), the integrated circuit chip being covered by a layer (181), a height of the integrated circuit chip, including the layer, being lower than a height of the head slider from the mounting surface (as shown in FIGS. 16-18, for instance, since the integrated circuit chip is mounted on the mounting surface in a recessed configuration) [as per claim 1]; and wherein the layer covers at least an entire upper surface of the integrated circuit chip (as shown in FIG. 18, for instance) [as per claim 30].

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claim 1-3, 5 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shiraishi (US 6,282,062) in view of Shiraishi et al. (US 6,084,746).

With respect to claims 1-3 and 5, Shiraishi (US 6,282,062) teaches a head assembly (10) comprising a mounting surface (11); an integrated circuit chip (13) which is mounted on the mounting surface and processes signals, and a head slider (12) provided with a head (line 17 in column 3, for instance), the integrated circuit chip being covered by a layer (25) [as per claims 1 and 3]; wherein the layer covering the integrated circuit chip is formed (as shown in Fig. 3, for instance) [as per claim 2]; and wherein the layer covers at least peripheral portions of the integrated circuit chip (as shown in Fig. 3, for instance) [as per claim 5]. As the claims are directed to head assembly, *per se*, the method limitation(s) appearing in line 3 of claim 2 can only be accorded weight to the extent that it/they affect the structure of the completed head assembly. Note that “[d]etermination of patentability in ‘product-by-process’ claims is based on product itself, even though such claims are limited and defined by process [i.e., “evaporation”], and thus product in such claim is unpatentable if it is the same as, or obvious form, product of prior art, even if prior product was made by a different process”, *In re Thorpe, et al.*, 227 USPQ 964 (CAFC 1985). Furthermore, note that a “[p]roduct-by-process claim, although reciting subject matter of claim in terms of how it is made [i.e., “evaporation”], is still product claim; it is patentability of product claimed and not recited process steps that must be established, in spite of fact that claim may recite only process limitations”, *In re Hirao and Sato*, 190 USPQ 685 (CCPA 1976).

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With respect to claim 8, Shiraishi (US 6,282,062) teaches a disk unit (lines 12-17 in column 1, for instance) for reading information from and writing information to a disk (line 15 in column 1, for instance), comprising a head assembly (10) having a mounting surface (11), a head slider (12) provided with a head (line 17 in column 3, for instance), and an integrated circuit chip (13) which is mounted on the mounting surface and processes information read from and/or written to the disk via the head, the integrated circuit chip being covered by a layer (25) [as per claim 8].

Shiraishi (US 6,282,062), however, remains silent as to “a height of the integrated circuit chip, including the layer, being lower than a height of the head slider from the mounting surface” as per claims 1-3, 5 and 8, and as to the layer being “made of poly(p-xylylene)” as per claim 3.

Shiraishi et al. (US 6,084,746) teaches a height (H1) of an integrated circuit chip (20) being lower than a height (H2) of a head slider (19) from a mounting surface (31) in the same field of endeavor for the purpose of avoiding disk interference therewith. Official notice is taken of the fact that poly(p-xylylene) is a notoriously old and well known chip covering layer material. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had a height of the integrated circuit chip, including the layer, of Shiraishi (US 6,282,062) be lower than a height of the head slider from the mounting surface as taught by Shiraishi et al. (US 6,084,746), and to have had the layer of Shiraishi (US 6,282,062) be made of poly(p-xylylene). The rationale is as follows:

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One of ordinary skill in the art would have been motivated to have had a height of the integrated circuit chip, including the layer, of Shiraishi (US 6,282,062) be lower than a height of the head slider from the mounting surface as taught by Shiraishi et al. (US 6,084,746) since such avoids disk interference therewith.

One of ordinary skill in the art would have been motivated to have had the layer of Shiraishi (US 6,282,062) be made of poly(p-xylylene) since such is a notoriously old and well known chip covering layer material, and since selecting a known material on the basis of its suitability for the intended use is within the level of ordinary skill in the art, *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Response to Arguments

8. Applicant's arguments filed 25 July 2002 have been fully considered but they are not persuasive.

The applicant argues that the two Shiraishi references do not teach in combination "the integrated circuit chip height of being 'lower than a height of the head slider from the mounting surface.'" because their respective objectives are "completely unrelated". This argument, however, is not found to be persuasive for the following: The respective objectives of the two Shiraishi references are not completely unrelated. They both relate generally to improving performance. A person of ordinary skill in the art would have recognized the value of both objectives and sought combination.

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Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 C.F.R. § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning the above referenced application should be directed to the examiner, Craig A. Renner, whose telephone number is (703) 308-0559, and whose facsimile number is (703) 872-9314. The examiner can normally be reached Tuesday through Friday from 7:30 a.m. to 6:00 p.m. E.S.T.


Craig A. Renner
Primary Examiner
Art Unit 2652

CAR
January 25, 2003